



龍源電力集團股份有限公司  
China Longyuan Power Group Corporation Limited\*

# 2018 年度業績發佈會

Annual Results Announcement

2019.03



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## Section 1

# Overview of 2018 Results



# 2018 Results Overview

## Revenue

(RMB MM)



■ Wind<sup>(1)</sup> ■ Coal<sup>(2)</sup> ■ Others<sup>(3)</sup>

→ YoY Growth for Total

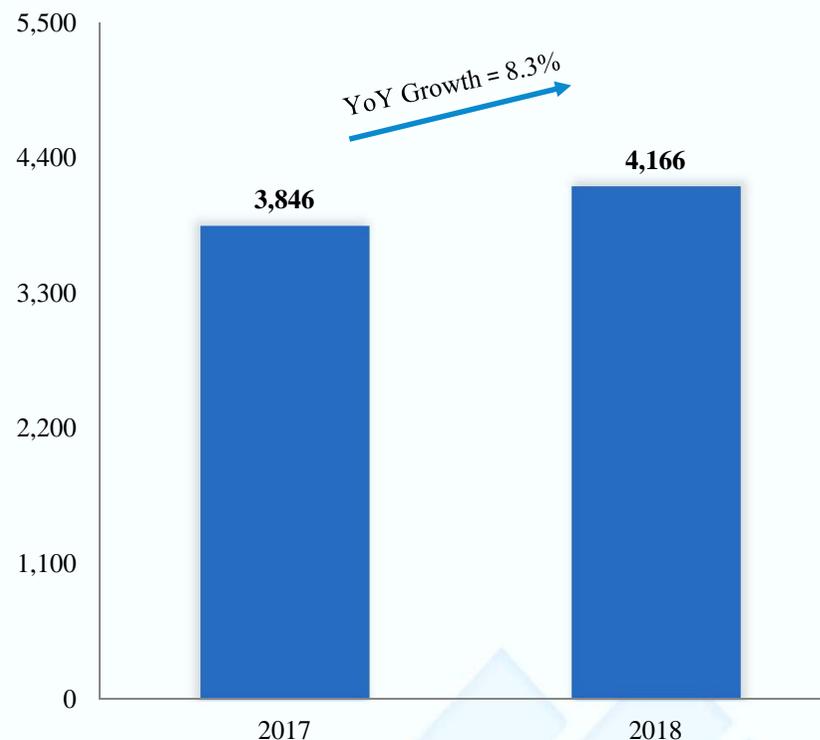
→ YoY Growth for Wind

Notes:

- 1 Includes concession construction revenue
- 2 Includes sales of coal
- 3 Includes inter-segment elimination revenue

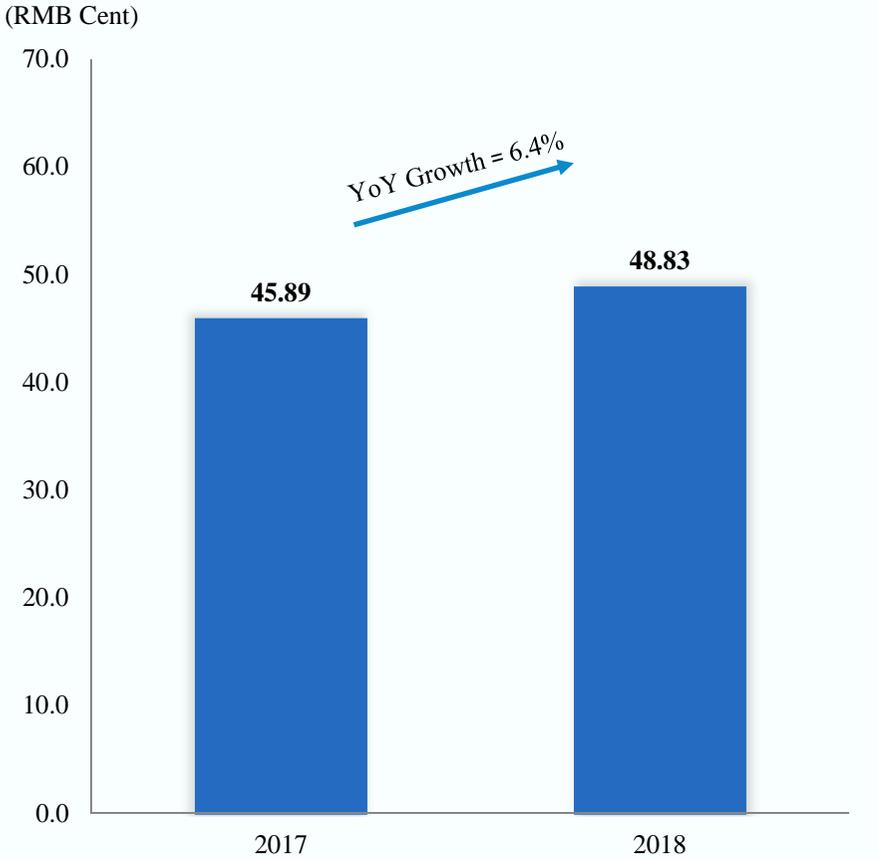
## Net Profit Attributable to Equity Holders of the Company

(RMB MM)

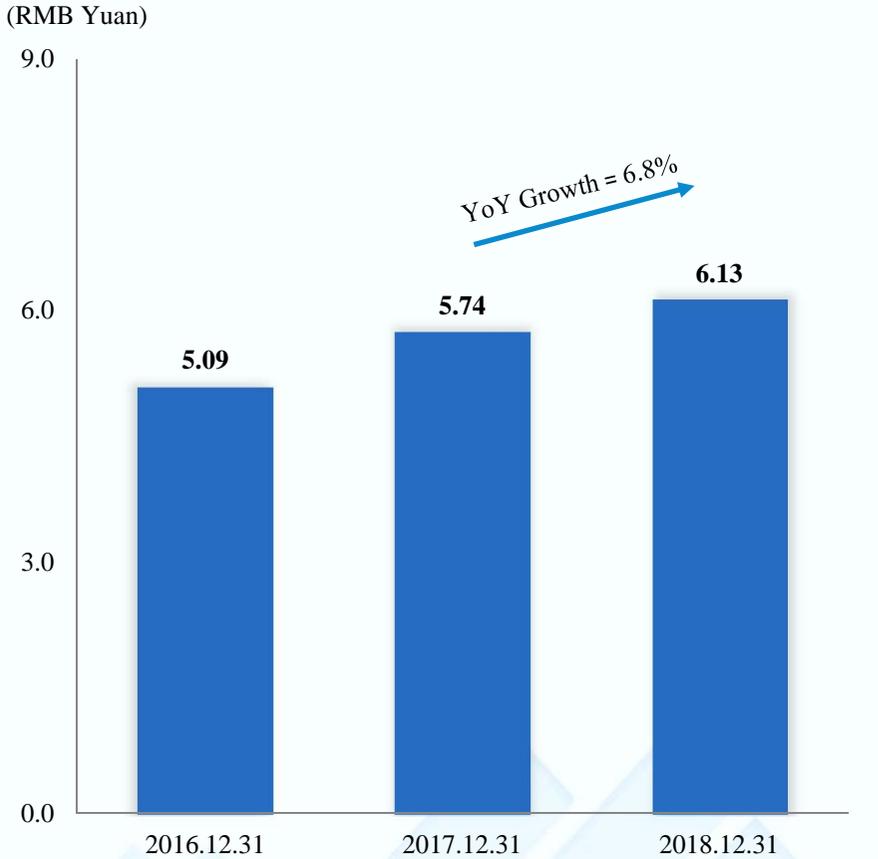


# 2018 Results Overview (Cont.)

## Earning Per Share



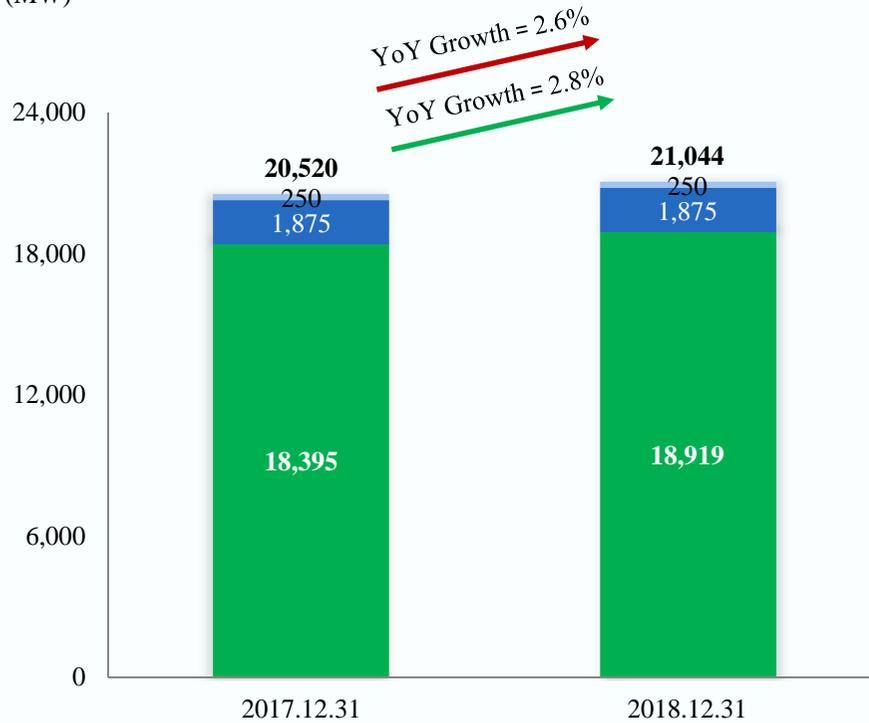
## Net Asset Per Share



# 2018 Results Overview (Cont.)

## Consolidated Installed Capacity

(MW)

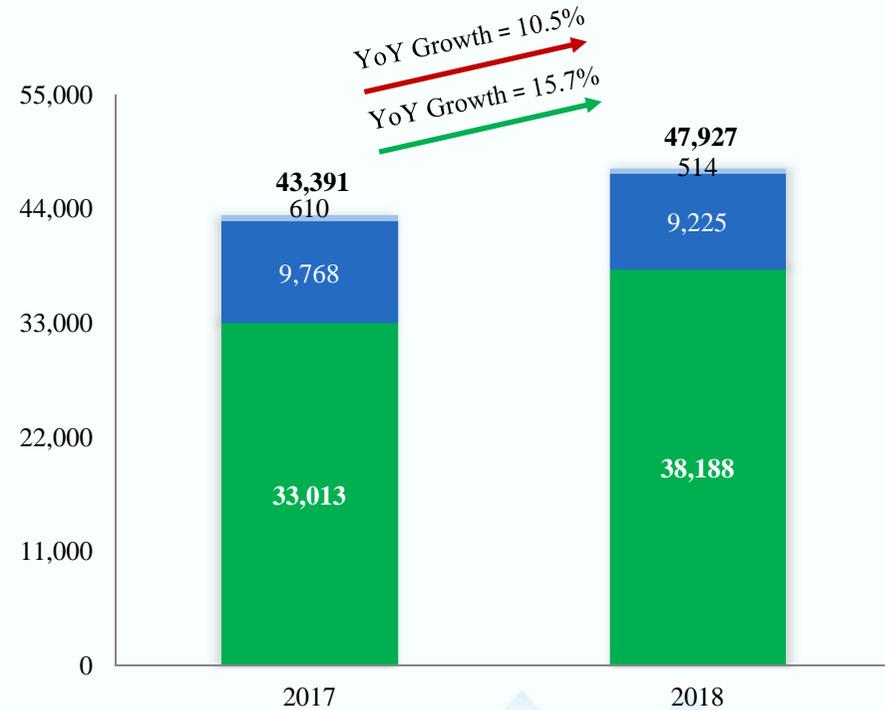


→ YoY Growth for Total  
→ YoY Growth for Wind

■ Wind ■ Coal ■ Other Renewable Energy

## Net Power Generation

(GWh)

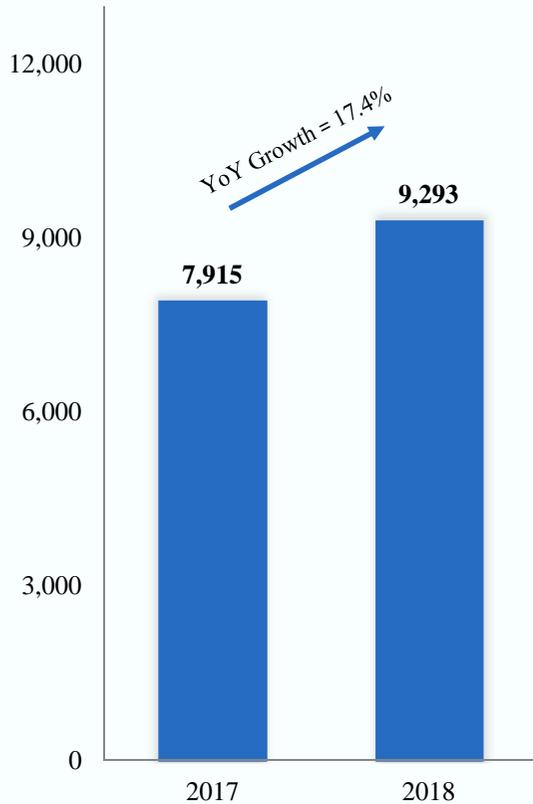


→ YoY Growth for Total  
→ YoY Growth for Wind

# 2018 Results Overview (Cont.)

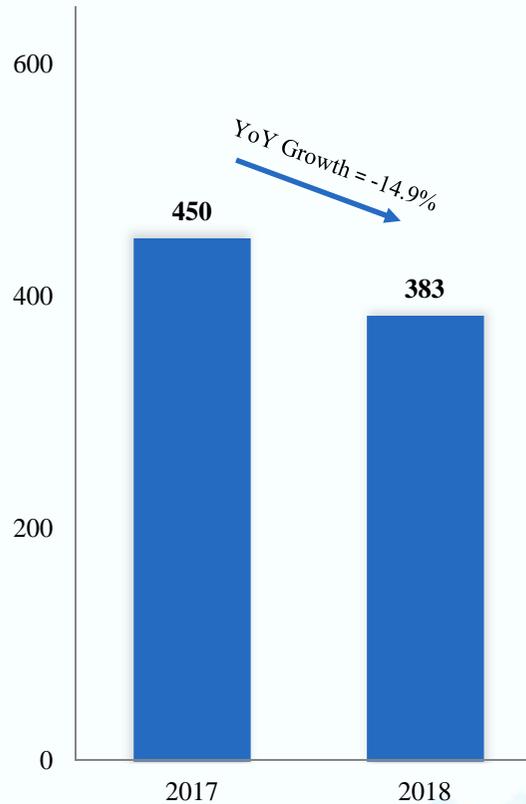
## Wind Power Operating Profit

(RMB MM)



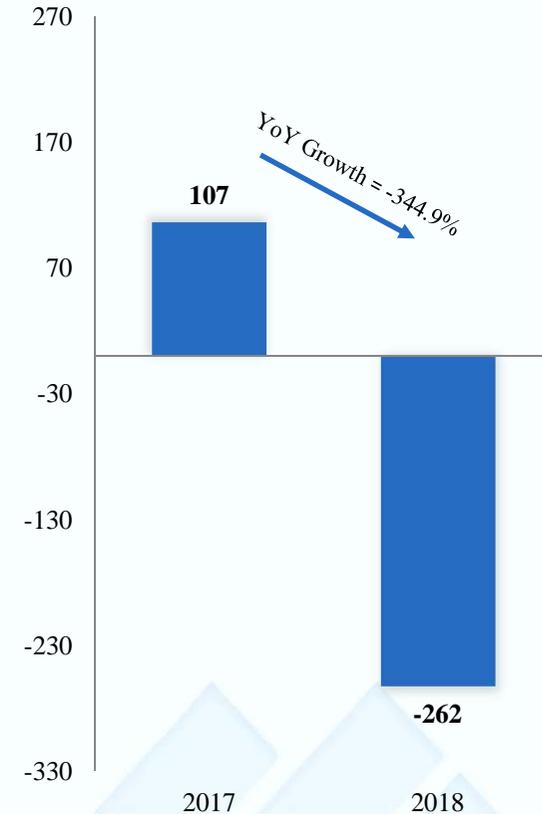
## Coal Power Operating Profit <sup>(1)</sup>

(RMB MM)



## Other Business Operating Profit

(RMB MM)



Note:

1 Coal power operating profit including sales of electricity & heat and others, and coal sales business

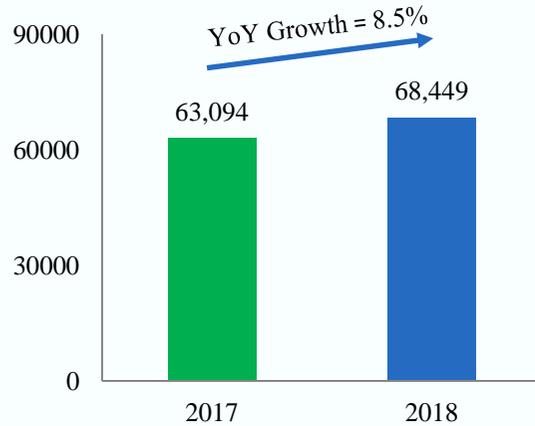
**Section 2**  
**2018 Business Performance**



# Industry Review – Operational Environment

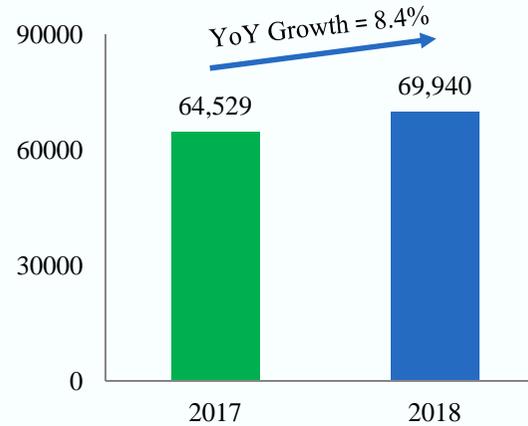
**Power Consumption Across the Country**

(100 million kWh)



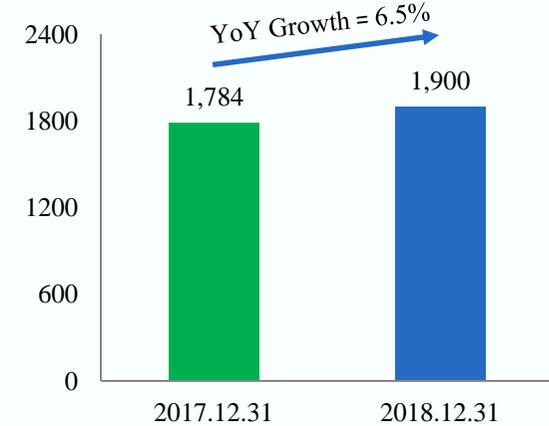
**Total Electrical Output**

(100 million kWh)



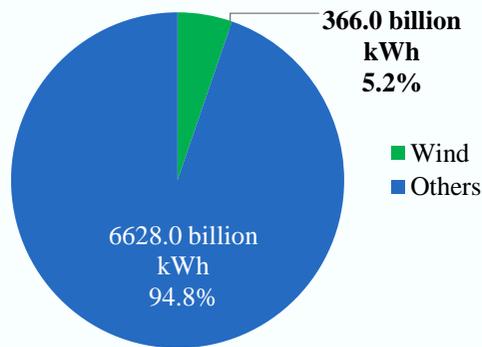
**Power Generation Installed Capacity Across the Country**

(GW)



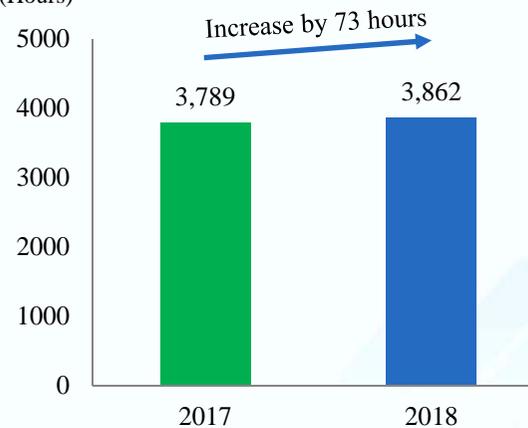
**The Proportion of Wind Power in the Total National Power Generation**

(%)



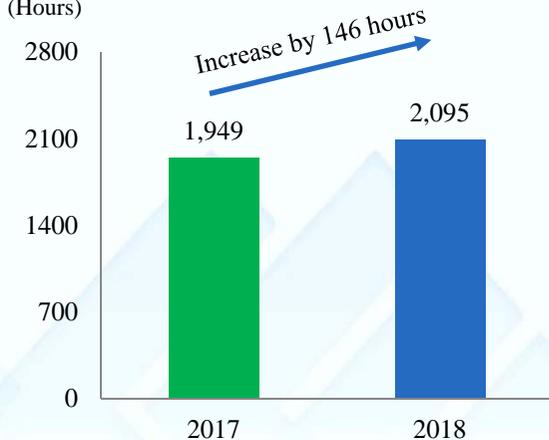
**Average Utilization Hours of Power Generation Equipment Across the Country**

(Hours)



**Average Wind Power Utilization Hours Across the Country**

(Hours)



Source: Statistic data by China Electricity Council

# Industry Review – Policy Factors

## State Council

- In June, the Opinion on Enhancing Protection of the Ecological Environment on All Fronts and Fighting the Battle of Pollution Control with Resolution
- In July, the Three-year Action Plan on Winning the Battle for Blue Sky Protection

## NDRC

- In October, the Action Plan on Clean Energy Consumption (2018-2020)

## NEA

- In March, the Notice on Guiding Opinions on Energy Work in 2018
- In April, the Circular on Interim Administrative Measures for the Development and Construction of Distributed Wind Power Projects
- In April, the Circular on Matters Concerning Easing Burdens of Enterprises in Renewable Energy Sector
- In May, the Circular on the 2018 Administrative Requirements of Wind Power Construction
- In November, the Circular on Improving and Perfecting the Working Mechanism on Establishment of the Trial Power Spot Market
- In March, September and November, conducted three rounds of opinion canvassing on the Circular on Implementing the Quota System for Renewable Energy Power

# Promoted Production Safety Soundly and Increased Wind Power Generation Steadily

Strengthened the implementation of accountability system of production safety and further enhanced the system establishment

Promoted the risk prevention system and enhance the safety awareness of all employees

Reinforced safety monitoring and inspections and identified safety hazards in an all-round way

Launched equipment management and improved operation efficiency of the equipment

Optimized the management and control of economic operation and advanced the construction of intelligent wind farms

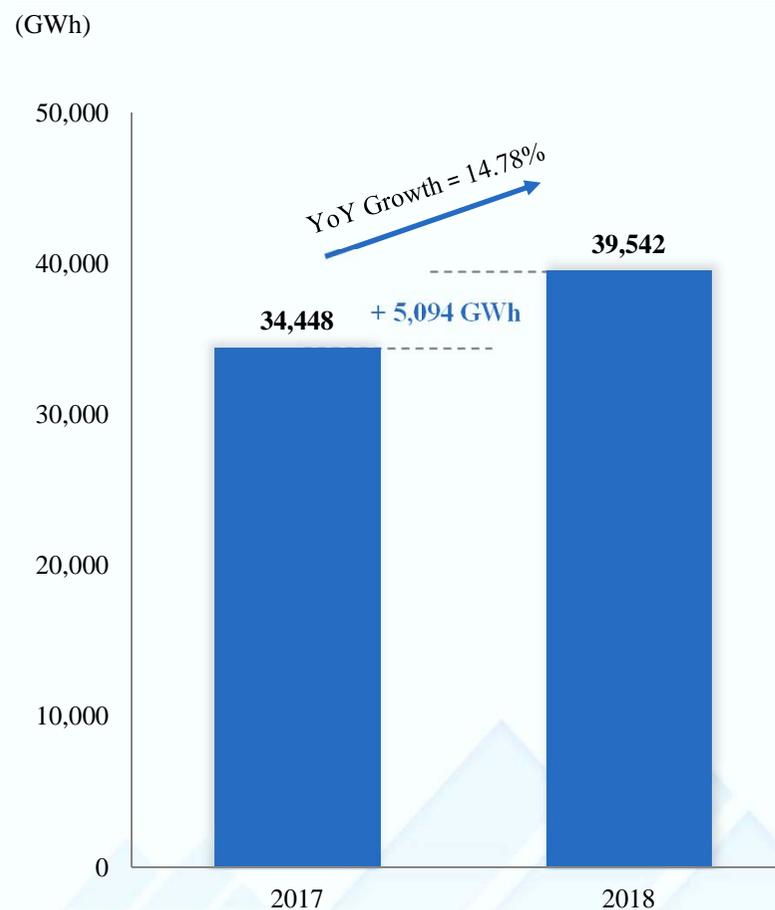
Strictly implemented dual controls on grid curtailment rate and limit and maximized efficiency

## Promoted Production Safety Soundly and Increased Wind Power Generation Steadily (Cont.)

**Geographical Breakdown of Wind Consolidated Gross Power Generation**

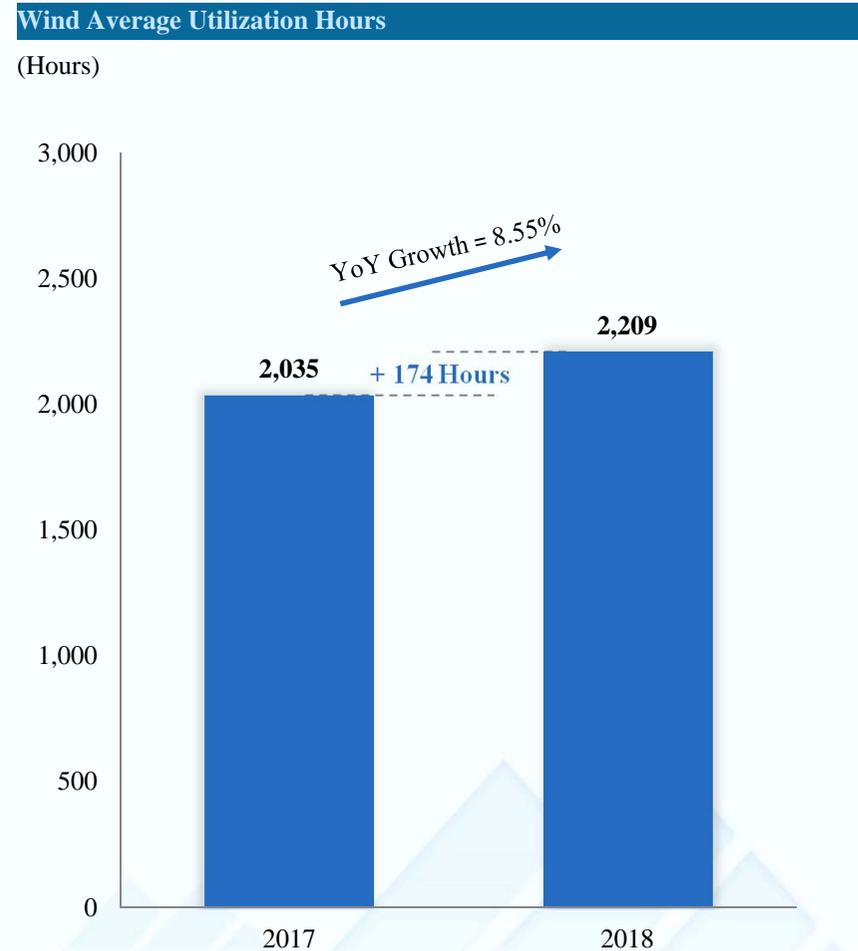
Region (MWh)	2018	2017	YoY
Heilongjiang	2,744,502	2,470,344	11.10%
Jilin	955,094	857,589	11.37%
Liaoning	2,266,022	2,181,498	3.87%
Inner Mongolia	5,499,564	4,909,500	12.02%
Jiangsu Onshore	2,637,447	2,356,064	11.94%
Jiangsu Offshore	2,279,162	1,089,998	109.10%
Zhejiang	360,597	409,719	-11.99%
Fujian	1,992,853	1,898,992	4.94%
Hainan	123,736	147,438	-16.08%
Gansu	2,590,060	2,095,533	23.60%
Xinjiang	3,208,338	2,827,684	13.46%
Hebei	2,485,556	2,606,858	-4.65%
Yunnan	2,093,666	1,808,015	15.80%
Anhui	1,642,302	1,550,076	5.95%
Shandong	795,852	723,540	9.99%
Tianjin	365,676	251,443	45.43%
Shanxi	1,779,727	1,403,353	26.82%
Ningxia	1,491,700	1,291,969	15.46%
Guizhou	1,201,921	1,263,221	-4.85%
Shaanxi	763,605	712,616	7.16%
Tibet	14,313	13,010	10.02%
Chongqing	307,455	349,950	-12.14%
Shanghai	137,712	132,176	4.19%
Guangdong	170,783	124,343	37.35%
Hunan	131,937	163,022	-19.07%
Guangxi	263,319	258,569	1.84%
Jiangxi	91,149	72,863	25.10%
Hubei	112,383	52,909	112.41%
Canada	272,338	282,092	-3.46%
South Africa	762,755	144,093	429.35%
<b>Total</b>	<b>39,541,526</b>	<b>34,448,476</b>	<b>14.78%</b>

**Wind Consolidated Gross Power Generation**



# Promoted Production Safety Soundly and Increased Wind Power Generation Steadily (Cont.)

Geographical Breakdown of Wind Average Utilization Hours			
Region (Hours)	2018	2017	YoY
Heilongjiang	2,223	2,001	11.09%
Jilin	1,825	1,730	5.49%
Liaoning	2,261	2,175	3.95%
Inner Mongolia	2,113	1,898	11.33%
Jiangsu Onshore	2,123	1,957	8.48%
Jiangsu Offshore	2,885	2,269	27.15%
Zhejiang	1,571	1,798	-12.63%
Fujian	2,890	3,029	-4.59%
Hainan	1,250	1,489	-16.05%
Gansu	2,008	1,625	23.57%
Xinjiang	2,079	1,835	13.30%
Hebei	2,120	2,228	-4.85%
Yunnan	2,721	2,448	11.15%
Anhui	2,240	2,205	1.59%
Shandong	2,146	2,100	2.19%
Tianjin	1,967	1,873	5.02%
Shanxi	2,146	1,860	15.38%
Ningxia	2,055	1,783	15.26%
Guizhou	1,872	1,969	-4.93%
Shaanxi	2,068	2,100	-1.52%
Tibet	1,908	1,735	9.97%
Chongqing	2,050	2,341	-12.43%
Shanghai	2,899	2,783	4.17%
Guangdong	2,168	2,219	-2.30%
Hunan	2,749	3,396	-19.05%
Guangxi	2,757	2,708	1.81%
Jiangxi	2,279	2,343	-2.73%
Hubei	2,341	2,261	3.54%
Canada	2,748	2,847	-3.48%
South Africa	3,120	--	--
<b>Total</b>	<b>2,209</b>	<b>2,035</b>	<b>8.55%</b>



# Deepened the Preliminary Work and Continued to Optimize the Development Layout

Proactively strengthened its strategic leadership and consolidated development advantages

- In 2018, the Group had 14 wind power projects with an aggregate capacity of 1,710 MW approved
- In particular, offshore wind power projects with an aggregate capacity of 1,000 MW were approved
- The Group obtained the approval for the sole wind power project in Sichuan Province, filling the Group's gap of wind power development in Sichuan Province
- As at the end of 2018, the Group had wind power projects of 7.0 GW approved but not yet put into operation
- In line with the development trend of the industry, market and policy, the Group continued to deepen its work at the preliminary stage and continuously adjusted the key development sector of national wind power to achieve the development pattern of "nationwide presence and provincial dispersion"
- It launched wind power projects in 31 provinces and regions across the country, thereby effectuating nationwide coverage (excluding Hong Kong, Macau and Taiwan)



# Optimized Project Quality Management and Steadily Promoted Project Construction

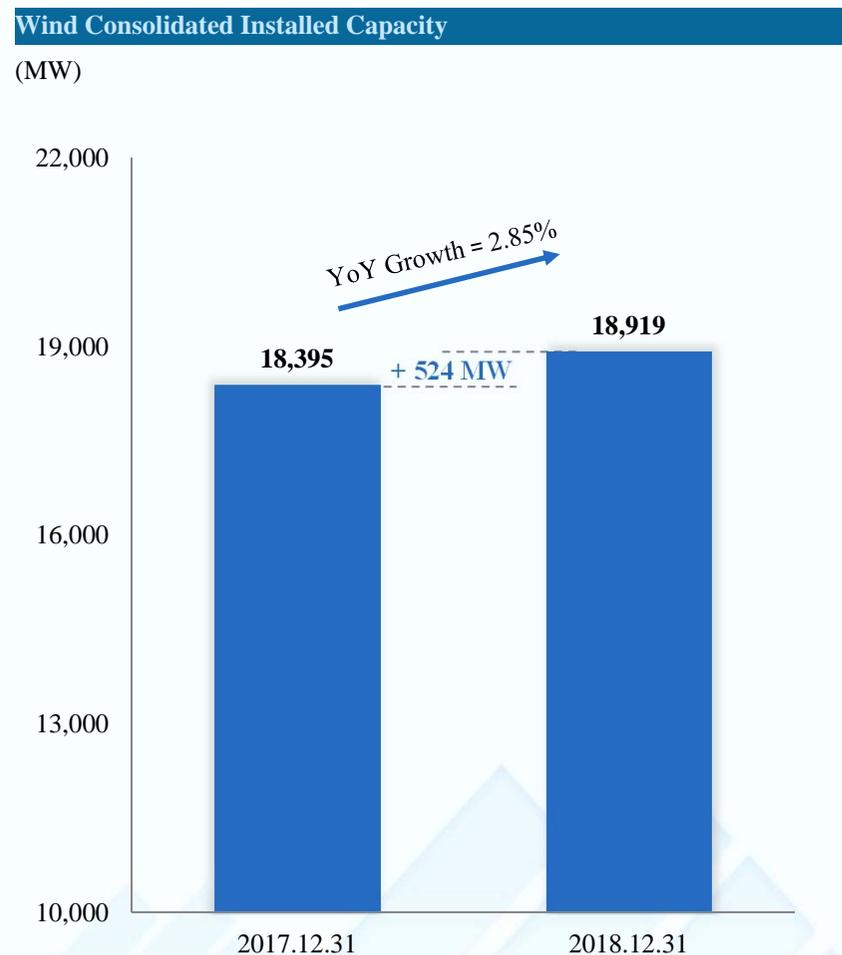
## Strengthened the management and control of safety and quality to construct high-quality projects

- The Group effectively promoted the progress of construction projects by fulfilling the conditions for commencement of construction in advance, further strengthening cost management and control and optimizing project quality management, resulting in steady progress in the construction of wind power projects. Six wind power projects with a capacity of 523.5 MW were put into operation throughout the year
- It effectively ensured safe construction at sea by adopting innovative construction management means, setting up mobile satellite base stations, introducing accurate coordinate weather forecasting system and implementing full coverage of communication over the construction site
- The Group strengthened the research on the basic types of offshore wind power projects and promoted the development of large-diameter rock-socketed single pile construction technology. The successful experience concluded in rock broaching anchor foundation provided technical reserves for the application thereof in subsequent projects
- The construction start-up procedures were strictly implemented to ensure that projects were constructed in accordance with the laws and regulations. Water and soil conservation was regulated in wind farm construction to build ecological wind farms nationwide and achieve green and sustainable development
- In June 2018, the wind power project of Shandong Longyuan with an installed capacity of 98.2 MW in Yushan and Qingyun Towns, Linshu County, the wind power project of Guangxi Longyuan with an installed capacity of 48 MW in Liujing Town, Heng County and the wind power project with an installed capacity of 47.5 MW in Beibao Town, Chongming County, Shanghai of the Group obtained the “China Quality Power Project Award”, the highest prize for project quality in the power construction industry in China



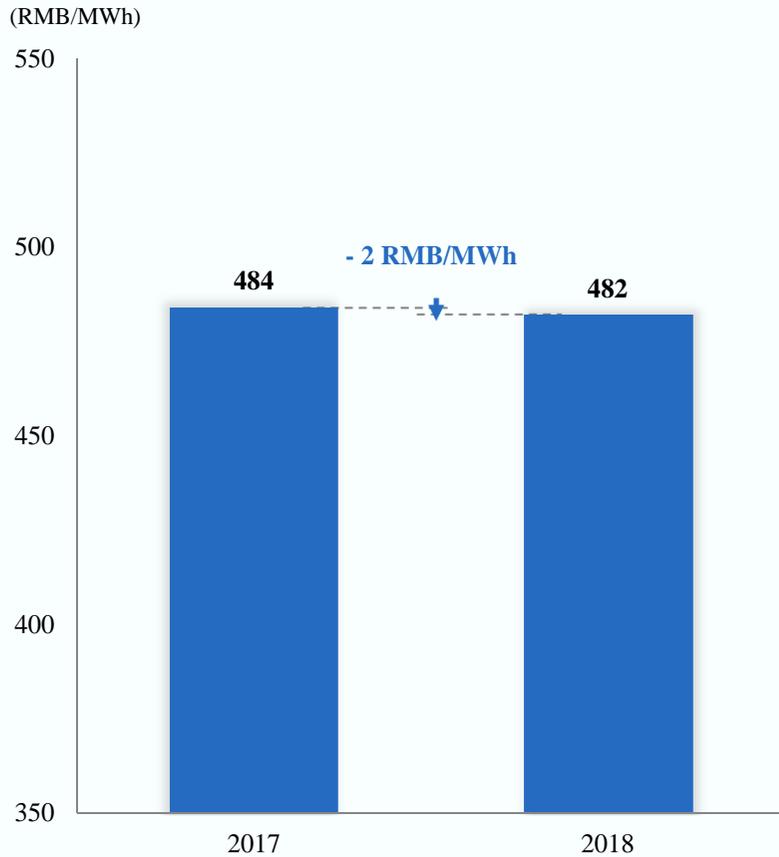
## Optimized Project Quality Management and Steadily Promoted Project Construction (Cont.)

Geographical Breakdown of Wind Consolidated Installed Capacity			
Region (MW)	2018.12.31	2017.12.31	YoY
Heilongjiang	1,234.7	1,234.7	0.00%
Jilin	547.4	547.4	0.00%
Liaoning	1,003.2	1,003.2	0.00%
Inner Mongolia	2,635.8	2,635.8	0.00%
Jiangsu Onshore	1,248.5	1,248.5	0.00%
Jiangsu Offshore	1,180.3	980.3	20.40%
Zhejiang	227.9	227.9	0.00%
Fujian	865.1	717.1	20.64%
Hainan	99.0	99.0	0.00%
Gansu	1,289.8	1,289.8	0.00%
Xinjiang	1,541.3	1,541.3	0.00%
Hebei	1,170.1	1,170.1	0.00%
Yunnan	769.5	769.5	0.00%
Anhui	733.1	733.1	0.00%
Shandong	393.4	393.4	0.00%
Tianjin	194.0	194.0	0.00%
Shanxi	879.0	829.5	5.97%
Ningxia	724.7	724.7	0.00%
Guizhou	691.5	641.5	7.79%
Shaanxi	439.2	439.2	0.00%
Tibet	7.5	7.5	0.00%
Chongqing	209.5	209.5	0.00%
Shanghai	47.5	47.5	0.00%
Guangdong	101.74	75.74	34.33%
Hunan	98.0	48.0	104.17%
Guangxi	95.5	95.5	0.00%
Jiangxi	100.0	100.0	0.00%
Hubei	48.0	48.0	0.00%
Canada	99.1	99.1	0.00%
South Africa	244.5	244.5	0.00%
<b>Total</b>	<b>18,918.84</b>	<b>18,395.34</b>	<b>2.85%</b>

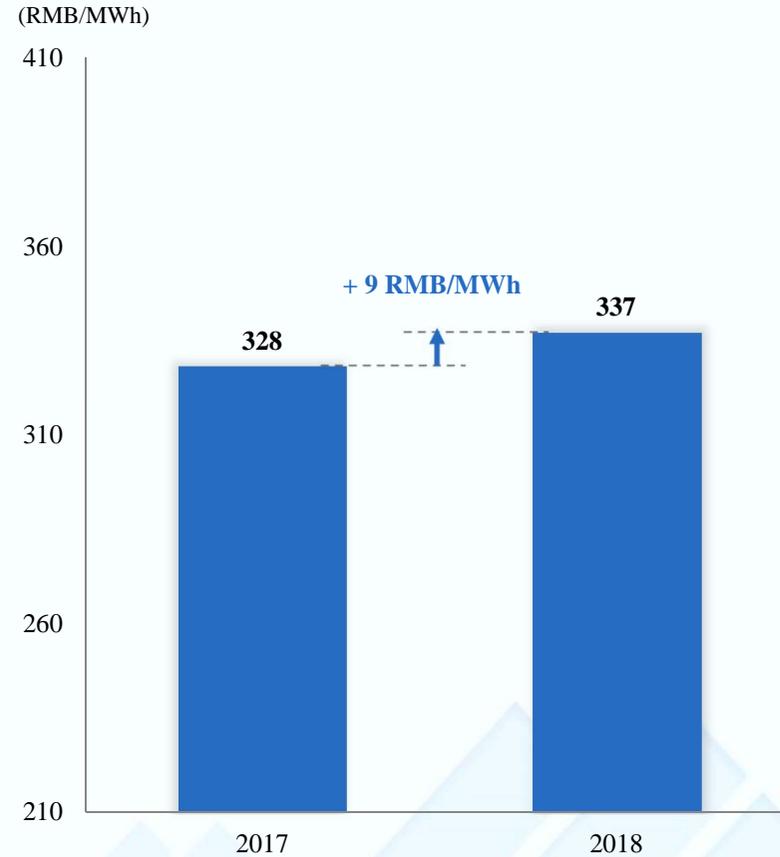


# Innovated marketing strategies and maintained stable tariff

Average Wind Power On-grid Tariff (Exc. VAT)



Average Coal Power On-grid Tariff (Exc. VAT)



# Continued to Strengthen Capital Management to Give Advantage to the Capital Cost Advantage

## Continued to maintain a leading position in controlling capital cost

- Continued its intensified management and control of financing to raise the cash sweep ratio, and laid down an overall operation plan to optimize regional capital allocation and effectively control capital cost
- By leveraging the capital scheduling and coordination mechanism under the direct management of the headquarters, it strengthened capital plan management and continued to improve capital utilisation efficiency to maximise the time value of funds
- It kept a close watch on domestic and foreign capital markets to further expand financing channels and varieties, successfully obtaining approval for registration of debt financing instruments and green asset-backed notes from the National Association of Financial Market Institutional Investors and spared no effort to ensure the safety of its funds
- In 2018, the Company successfully issued 10 tranches of ultra short-term debentures, 1 tranche of green enterprise bonds, 1 tranche of green corporate bonds and 1 tranche of green asset-backed notes, enabling the Group to maintain an advantage among its peers in terms of capital cost throughout the year
- The Group continued to made the best of the financing advantages of bond markets and won the “outstanding issuer of green bonds” and “outstanding issuer of corporate bonds” awards in Chinese bond market, setting up a well-established corporate image

# Increased Efforts on Technical Research and Development and Continuously Improved Supporting Capacity of Technology

- In 2018, the Group obtained 14 new science and technology projects, 38 authorized patents and 13 software copyrights
- The Group undertook the preparation of 11 national and industry standards, and the “Guidelines on Vibration Evaluation of Wind Turbine” and the “Post-evaluation Procedures for Photovoltaic Power Station Equipment”, two standards in the energy industry prepared by the Group, were approved by the NEA for implementation
- The Power Generating Unit No. 1 of Wenling Jiangxia Pilot Tidal Power Station of the Group won the honorary title of China’s top 20 “Outstanding Marine Projects” and was covered in CCTV’s “The Pillars of a Great Power” and “China’s Public Opinion Field”
- The “Three-blade New Tidal Generator Set Design, Manufacturing and Engineering Demonstration” and the “Research and Application of Dedicated Large Drill and Key Construction Technologies for Offshore Wind Power Construction” won three provincial and ministerial awards including China Electric Power Science and Technology Award
- The “Safety Monitoring and Evaluation Technology for Support Structure of Offshore Wind Turbine” won the China Electric Power Construction Science and Technology Progress Award
- Three projects including the “Technical Design, Manufacturing and Installation of Multi-pile Steel Structure of Offshore Wind Turbine” won the Energy Innovation Award granted by China Energy Research Society
- Ten scientific and technological projects including the “Technical Research and Engineering Demonstration Construction of Digital Wind Farms” won the Science and Technology Progress Award of China Energy Investment Corporation



# Adhered to the Requirements of High Quality Development to "Go Global" in a Proactive and Steady Way

- Following the requirements of high-quality development, the Group proactively participated in the construction of the “Belt and Road”, steadily implemented the “go global” strategy, exerted concentrated efforts on overseas wind power and photovoltaic market, and adhere to the market strategy of focusing on greenfield investment and laying equal stress on greenfield development and acquisition of projects under construction to steadily promote the development of overseas business
- In 2018, the 99.1 MW Dufferin Wind Farm in Canada recorded total power generation of 272 GWh. As at 31 December, it has maintained safe production for a total of 1,492 days. Longyuan Canada also proactively fulfilled its social responsibilities and established close relationship with the government, community organizations, and aboriginal tribes where the project is located
- In 2018, the Group’s project in De Aar, South Africa has been put into production and operation for a full year and its utilization hours reached 3,120 hours and its accumulated power generation reached 763 GWh, far beyond the expectation. In June, CCTV sent the staff of the show *Belt & Road of Yuanfang De Jia* to South Africa for covering the De Aar Wind Power Project to promote the Company’s “go global” strategy and its contribution to the local economy development. The programme was aired worldwide while the BRICS Business Forum was held in South Africa



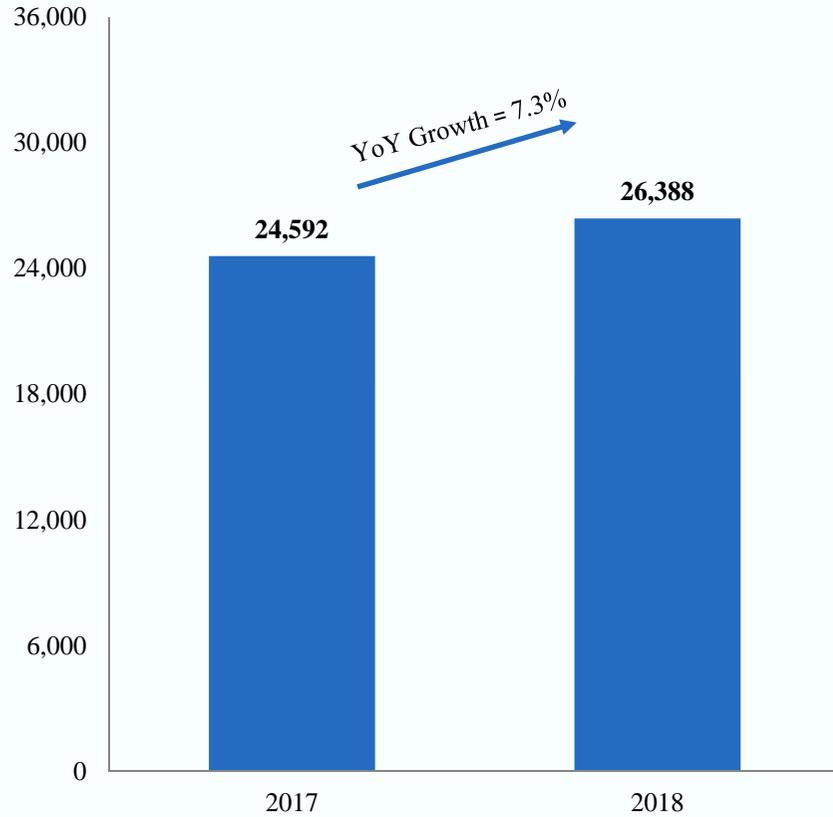
**Section 3**  
**2018 Financial Performance**



# 2018 Results Overview

## Revenue <sup>(1)</sup>

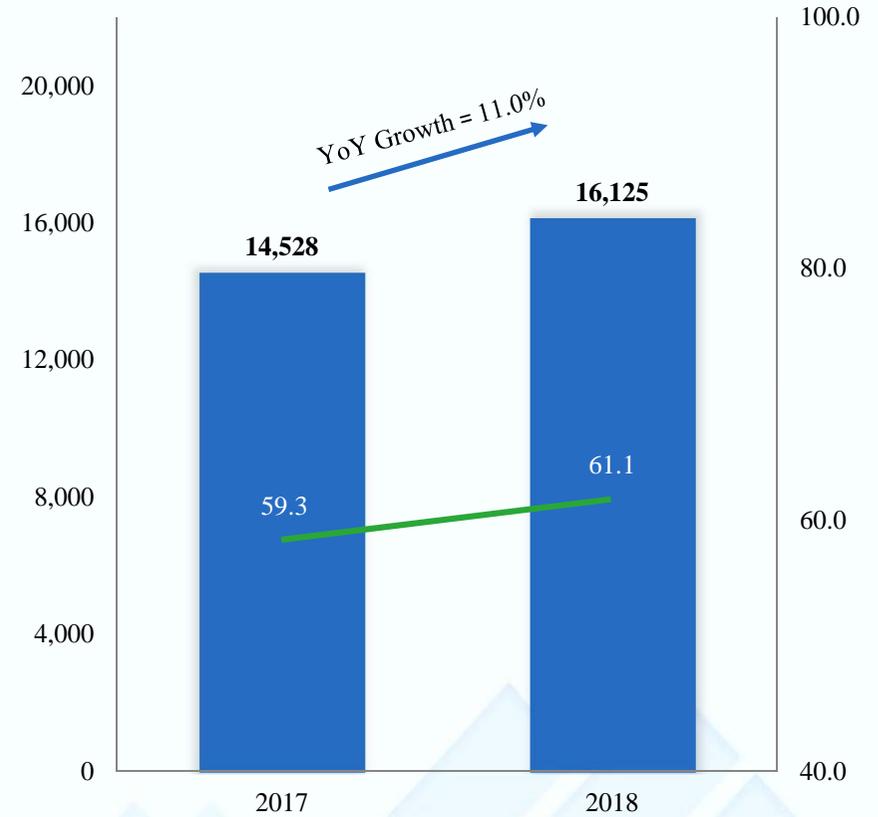
(RMB MM)



## Adjusted EBITDA and EBITDA Margin <sup>(2)</sup>

(RMB MM)

(%)

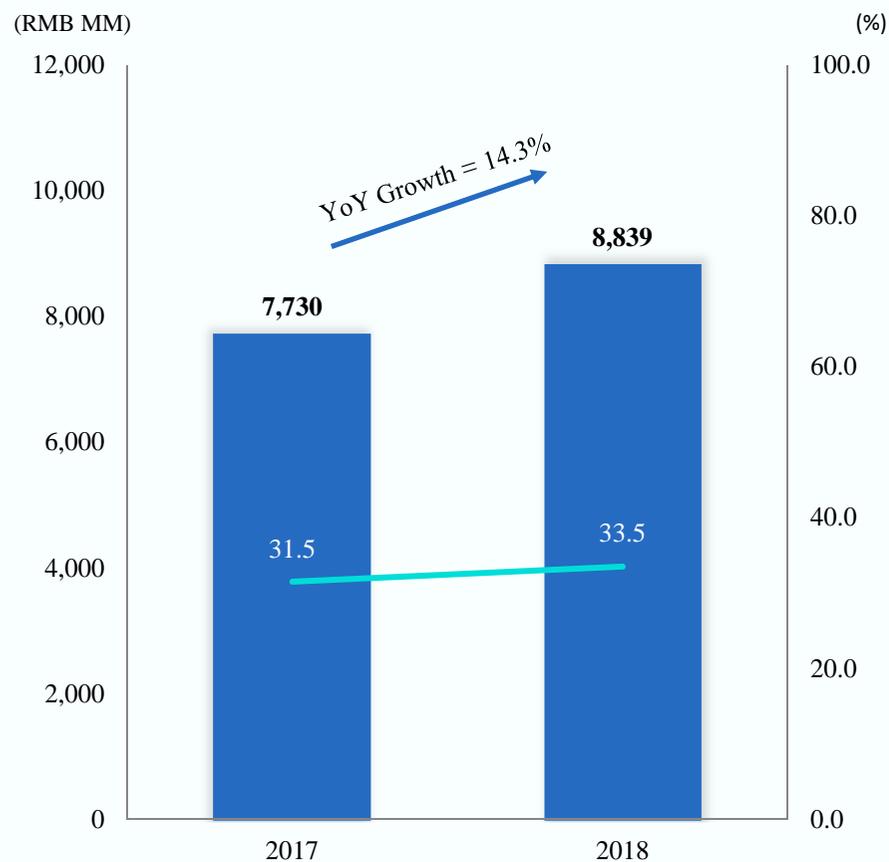


Notes:

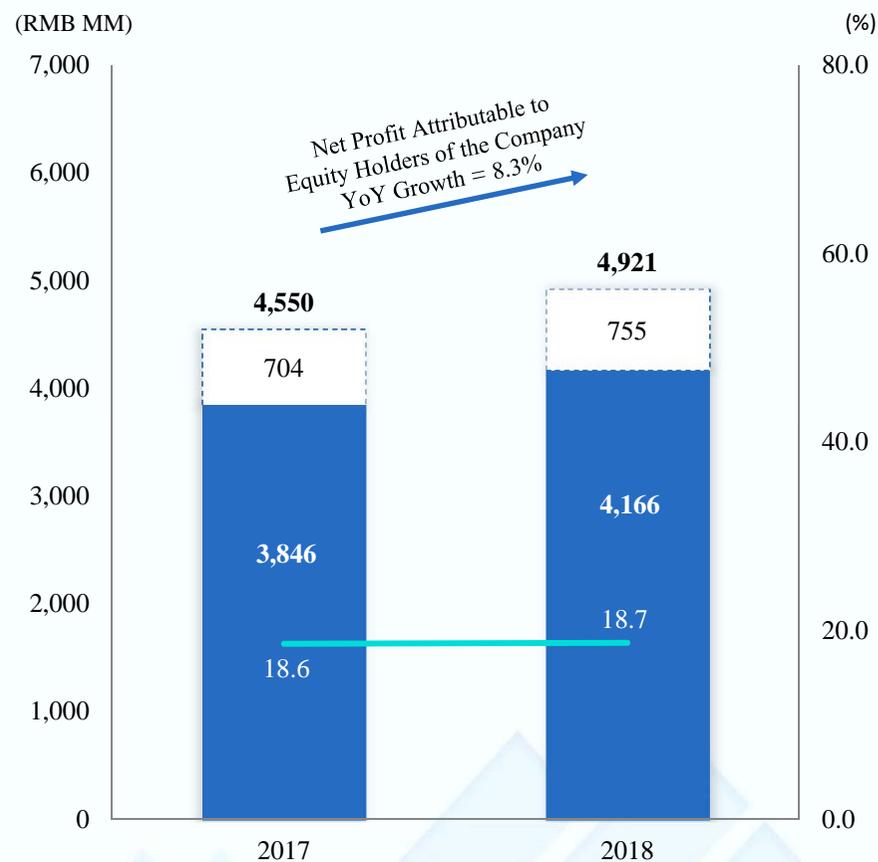
- 1 Including concession construction revenue
- 2 Adjusted EBITDA excludes other net income, adds back non-recurring impairments

# 2018 Results Overview (Cont.)

## Adjusted Operating Profit and Profit Margin <sup>(1)</sup>



## Net Profit and Profit Margin <sup>(2)</sup>



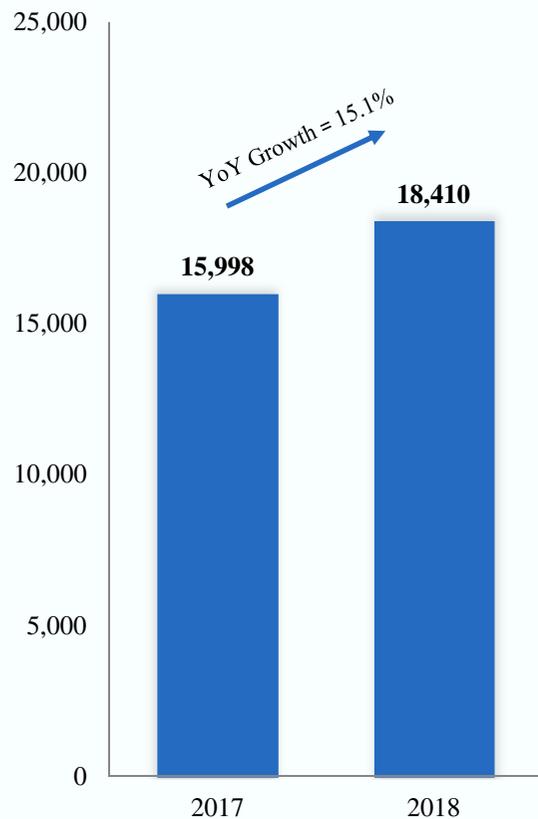
Notes:

- Adjusted operating profit excludes other net income, adds back non-recurring impairments
- Solid line: Net profit attributable to equity holders; Dash line: Non-controlling interests. Net profit margin calculated based on net profit including non-controlling interests, excluding concession construction revenue

# 2018 Wind Power Business Results

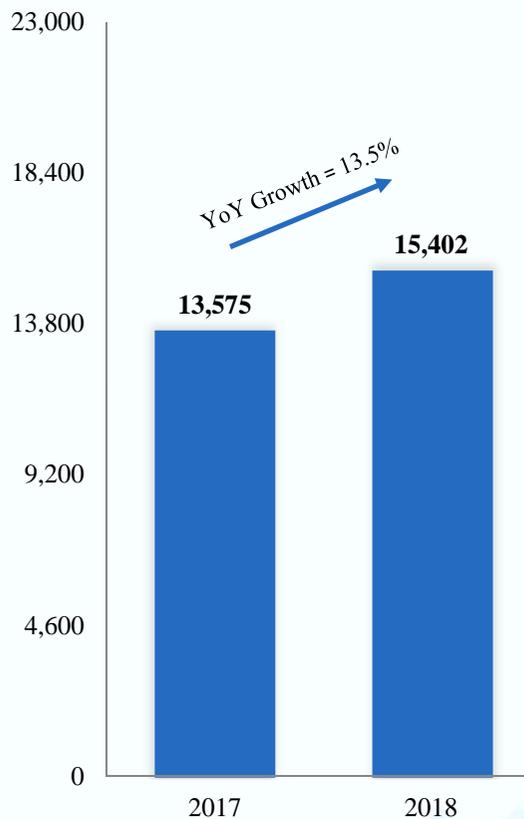
## Revenue <sup>(1)</sup>

(RMB MM)



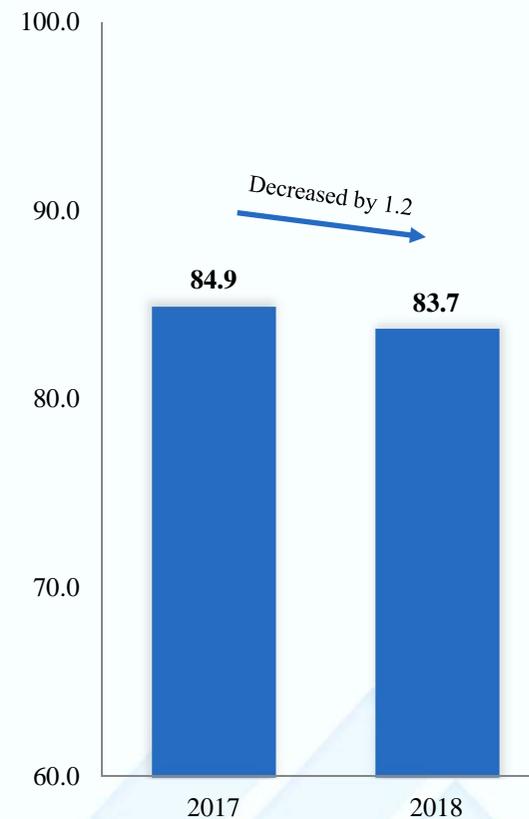
## Adjusted EBITDA <sup>(2)</sup>

(RMB MM)



## Adjusted EBITDA Margin <sup>(2)</sup>

(%)



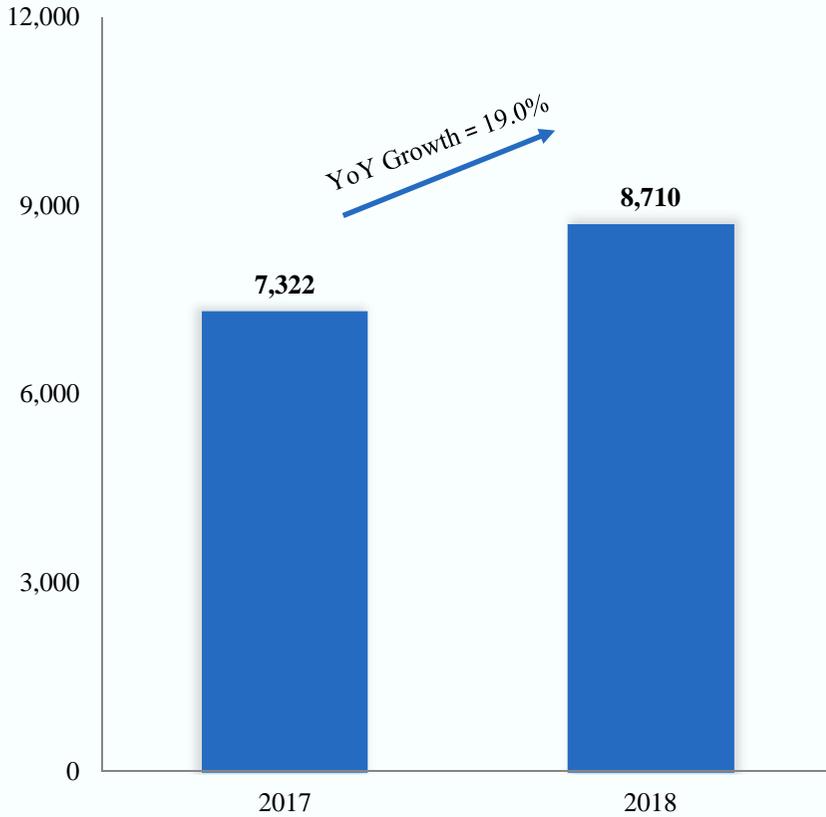
Notes:

- 1 Revenue excludes concession construction revenue
- 2 Adjusted EBITDA excludes other net income, adds back non-recurring impairments

# 2018 Wind Power Business Results (Cont.)

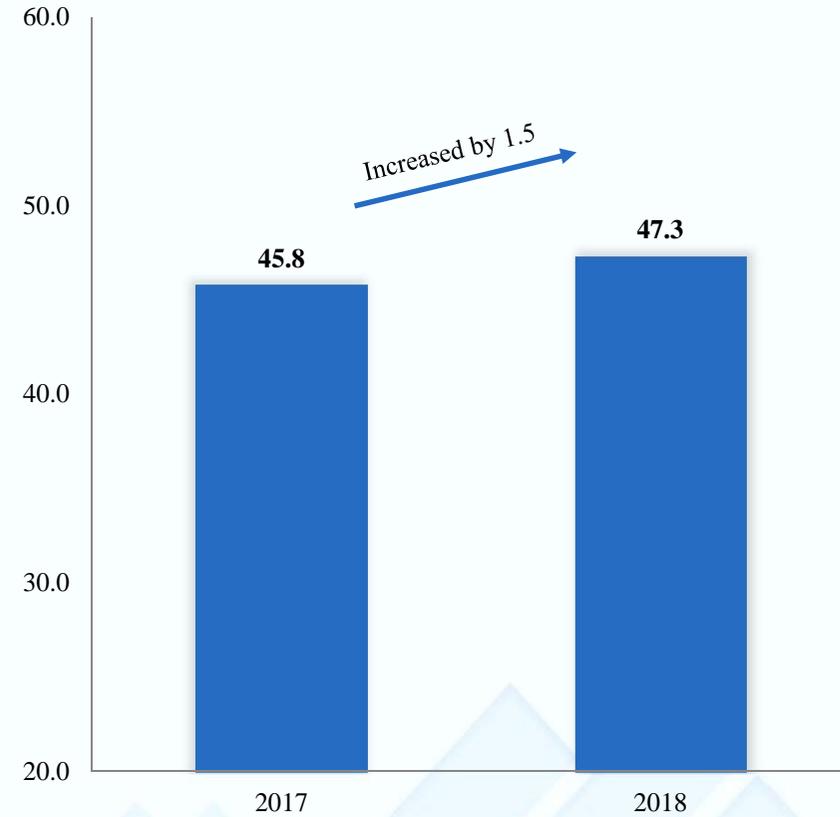
## Adjusted Operating Profit <sup>(1)</sup>

(RMB MM)



## Adjusted Operating Profit Margin <sup>(1)</sup>

(%)



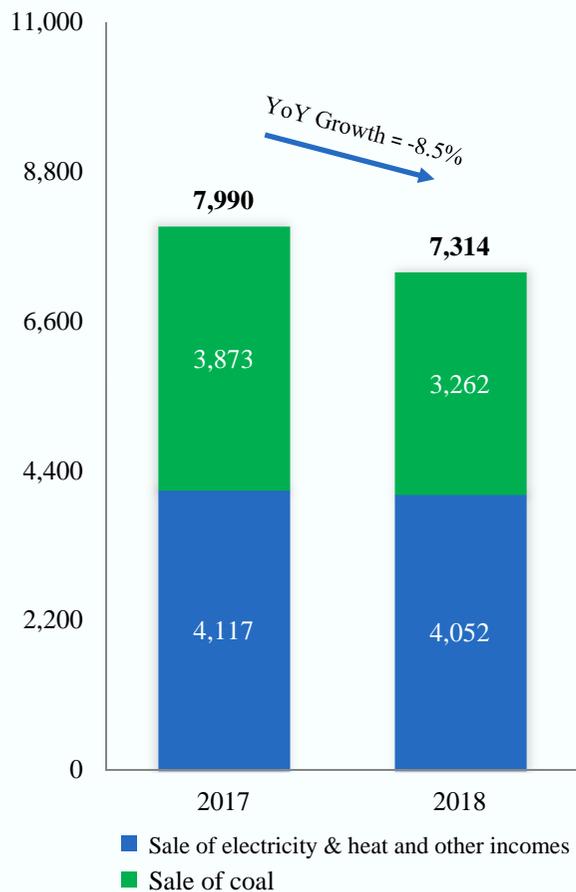
Note:

1 Adjusted operating profit excludes other net income, adds back non-recurring impairments

# 2018 Coal Power Business Results

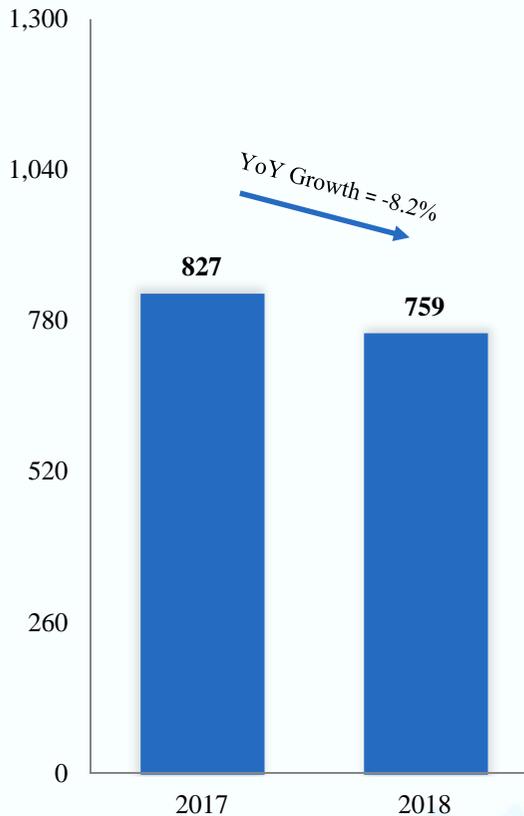
## Revenue

(RMB MM)



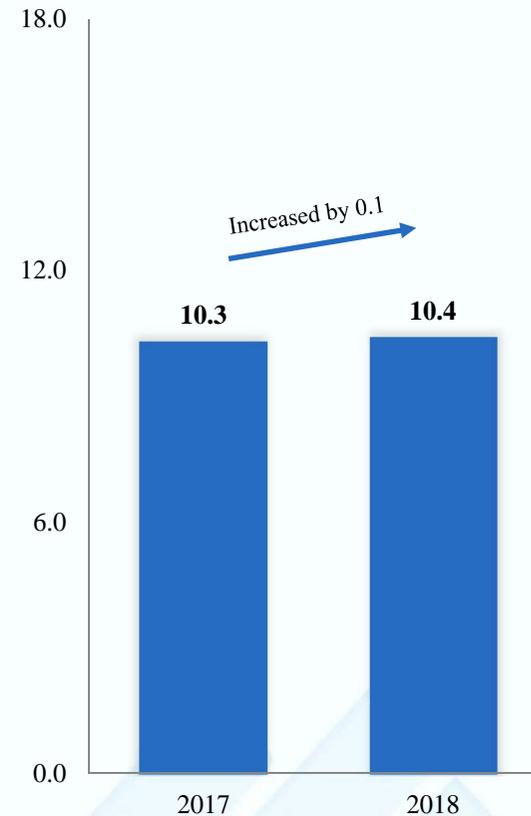
## Adjusted EBITDA <sup>(1)</sup>

(RMB MM)



## Adjusted EBITDA Margin <sup>(1)</sup>

(%)



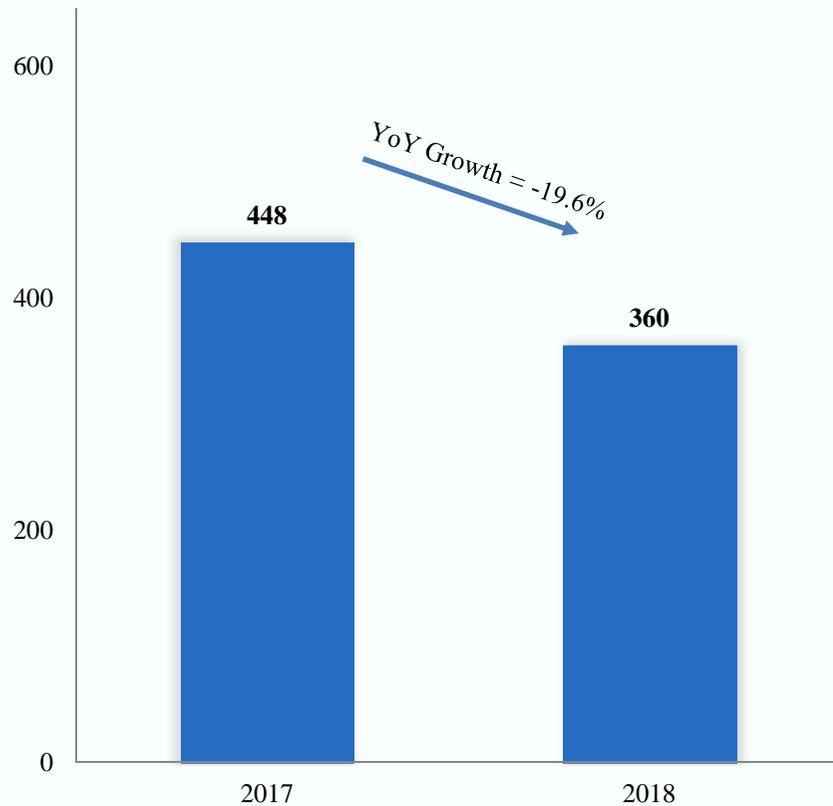
Note:

1 Adjusted EBITDA excludes other net income, adds back non-recurring impairments, includes coal sales

# 2018 Coal Power Business Results (Cont.)

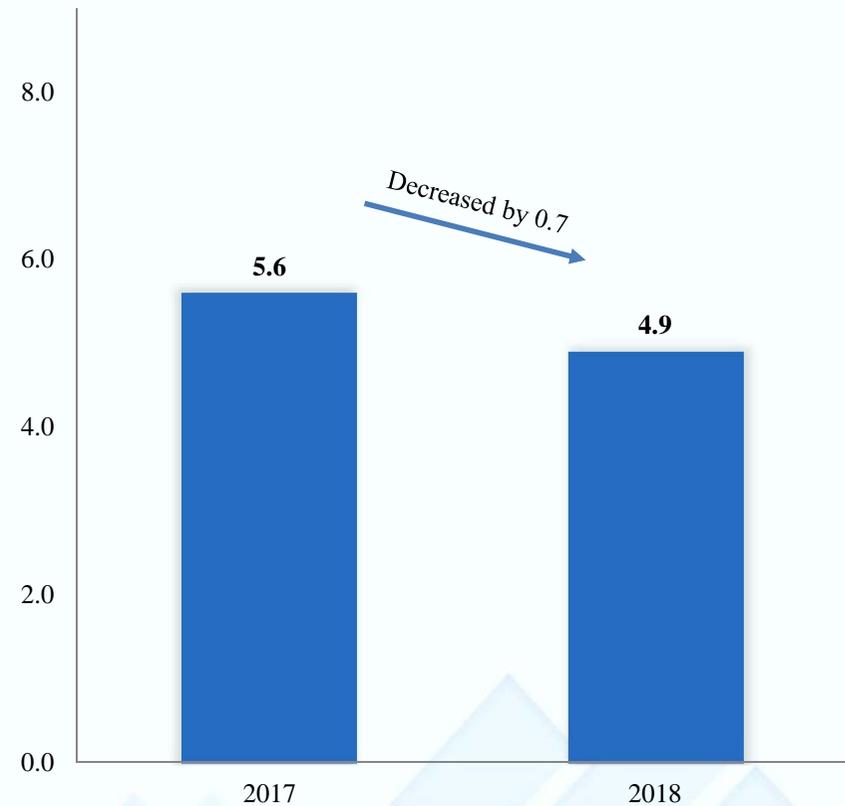
## Adjusted Operating Profit <sup>(1)</sup>

(RMB MM)



## Adjusted Operating Profit Margin <sup>(1)</sup>

(%)



Note:

1 Adjusted operating profit excludes other net income, adds back non-recurring impairments, includes coal sales

# Balance Sheet

## Key Data in Balance Sheet

(RMB MM)

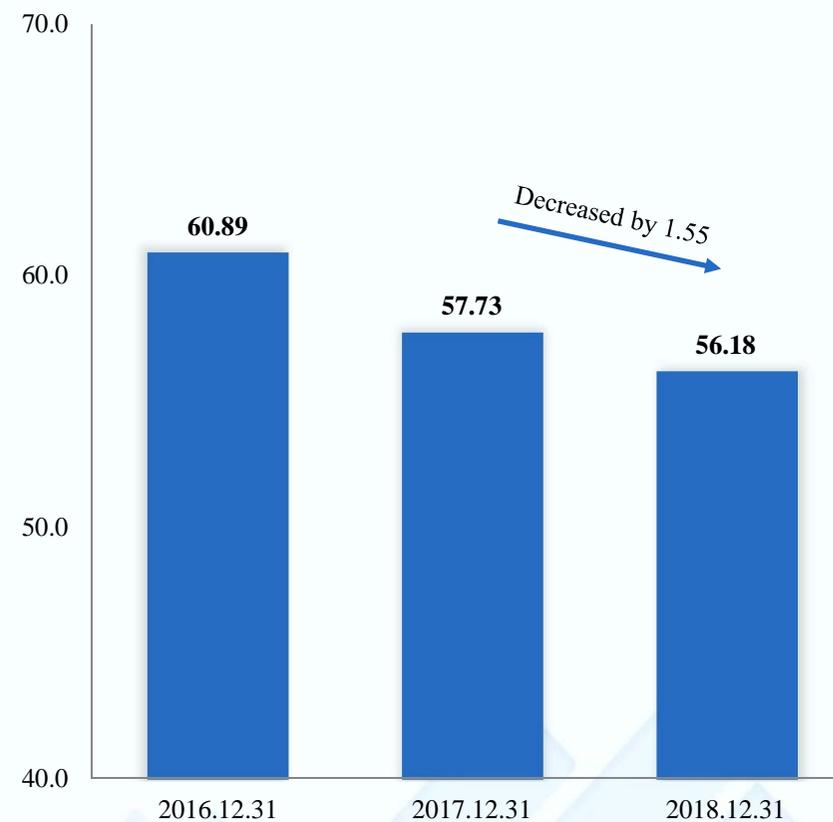
	2018-12-31	2017-12-31	YoY
<b>Bank Deposit and Cash</b>	<b>2,861</b>	<b>5,072</b>	-43.6%
<b>Short-term Borrowings</b>	<b>28,336</b>	<b>35,774</b>	-20.8%
<b>Long-term Borrowings</b>	<b>46,645</b>	<b>41,620</b>	12.1%
<b>Total Liabilities</b>	<b>89,938</b>	<b>92,336</b>	-2.6%
<b>Net Asset</b>	<b>56,566</b>	<b>53,299</b>	6.1%
<b>Total Asset</b>	<b>146,504</b>	<b>145,635</b>	0.6%

Note:

1 Net debt / (net debt + shareholder's equity (incl. minority interests))

## Net Gearing <sup>(1)</sup>

(%)



**Section 4**  
**2019 Outlook**



# Prospect

**To uphold and strengthen Party leadership and move further forward with the full and rigorous governance over the Party**

**To strengthen safety management over production and operation, and continuously improve operation quality**

**To optimize our strategic plans and push for high-quality development**

**To strengthen technological innovation and enhance our core competitiveness**

**To deepen management innovation and strengthen endogenous impetus**

**To insist on the leading role of cultural advancement and make Longyuan a harmonious and happy big family**



**Thank You**